

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Eagle Electronics, Inc.
Attn: Fred Skahan
1735 Mitchell Boulevard
Schaumburg, Illinois 60193

Application No.: 96010123

I.D. No.: 031282ACH

Applicant's Designation:

Date Received: March 11, 2005

Subject: Printed Circuit Board Manufacture

Date Issued: October 3, 2005

Expiration Date: October 3, 2010

Location: 1735 Mitchell Boulevard, Schaumburg

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Natural Gas Combustion

Drilling And Routing

Drilling and routing machines with tubular bag separator

Image Processes

Dry film laminators with exposure and development

Plating Processes

Various electroplating and electroless plating processes and black hole line - also may include some experimental plating-type processes. Exhaust to fume scrubber.

Etching Processes

Alkaline-based etching including hot air leveling. Exhaust to fume scrubber.

Screen Printing Processes

Auto and manual screen printing lines with electric thermal and UV ovens. Exhaust to fume scrubber.

Multi-Layer Processes

Multi-layer line plus Desmear Line and Black Oxide Line. Exhaust to fume scrubber.

Fume Scrubber

High efficiency wet scrubber

The above equipment is pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

1a. This federally enforceable state operating permit is issued:

- i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons per year of volatile organic material). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- ii. To limit the emissions of volatile organic material from the source to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.

- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2. Emissions and operation shall not exceed the following limits:
 - a. Natural gas combustion

<u>Equipment</u>	<u>Natural Gas Usage</u>		<u>VOM Emissions</u>	
	<u>(mmcf/Mo)</u>	<u>(mmcf/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Combustion Units	1.0	10	0.002	0.021

Compliance with the above annual limits shall be determined on a monthly basis using the last 12 months of operating data and standard emission factors.

- b. Printed circuit board manufacture

<u>Process</u>	<u>Equipment</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
		<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
Plating Processes	Electroplating	0.038	0.300	0.038	0.300
	Black Hole Line	0.038	0.300	0.038	0.300
Etching Processes	Hot Air Leveler	0.375	3.000	0.375	3.000
Screen Printing Processes	Auto Screen Presses /Ovens	0.822	6.576	0.822	6.576
	Manual Screen Presses/Ovens	0.788	6.300	0.788	6.300
Multi-Layer Processes	Desmear Line	0.038	0.300	0.038	0.300
Fume Scrubber	Other equipment served by Fume Scrubber	0.375	3.000	0.375	3.000
Totals		2.474	19.776	2.474	19.776

Compliance with the above annual limits shall be determined on a monthly basis using the last 12 months of operating data.

- c. This permit is issued based on negligible emissions of particulate matter from drilling and routing with filter, dry film laminators expose and develop, UV curing oven, electroplating, black oxide line, and multiplayer line. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

3. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
4. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits of this permit.
 - a. Natural gas usage (mmcf/month);
 - b. VOM and HAP containing material usage including cleanup solvents, (gallon/month), density (lbs/gallon), and VOM and hazardous air pollutant (HAP) content for each of the above listed manufacturing processes; and
 - c. VOM and HAP emissions from each of the above listed combustion and manufacturing processes based upon standard emission factors and material balance respectively using the required records (tons/month and tons/year).
5. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
6. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
7. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

It should be noted that this permit has been revised so as to address the removal of the IR reflow oven, LPI curtain coaters, and 3 manual silk screen presses with 2 batch ovens.

If you have any questions on this, please call George Kennedy at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:GMK:psj

cc: Region 1

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from printed circuit board manufacturing operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. By limiting the usage of raw materials containing volatile organic materials the resulting evaporation and emissions of volatile organic material is limited. The required recordkeeping of material usage, VOM and HAP content allows the calculation of VOM and HAP usage and emissions. The resulting maximum emissions are below the levels, e.g., 100 tons per year of volatile organic material at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

Process	Equipment/Fuel	EMISSIONS			
		PM	VOM	HAP Single	HAP Combined
		(Tons/Yr)	(Tons/Yr)	(Tons/Yr)	(Tons/Yr)
Combustion	Natural Gas	0.52	0.021		
Drilling and Routing	All	0.44			
Image Processes	All	0.44			
Plating Processes	Electroplating	0.44	0.300		
	Black Hole Line		0.300		
Etching Processes	Hot Air Leveler		3.000		
Screen Printing Processes	Auto Screen Presses/Ovens		6.576		
	Manual Screen Presses/Ovens		6.300		
	UV Curing Oven	0.44			
Multi-Layer Processes	Desmear Line		0.300		
	Black Oxide Line	0.44			
	Multi-Layer Line	0.44			
Fume Scrubber	Other Equipment served				
	by Fume Scrubber		3.000		
Totals		2.692	19.797	< 10	< 25

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